REMARKS

In view of the foregoing amendments and the following remarks, Applicant requests favorable reconsideration and withdrawal of the rejections set forth in the above-mentioned Office Action.

Claims 1, 4-20, and 24 are now pending in the application with Claims 1, 5, and 6 being the independent claims. Claims 10-18 are withdrawn from consideration.

Claims 3 and 21-23 are cancelled herein without prejudice to or disclaimer of the subject matter contained therein. Claims 1 and 4-6 have been amended to even more succinctly define the invention and/or to improve their form. Claim 24 is newly presented.

Initially, Applicant notes with appreciation that Claims 6 and 7 have been allowed.

In the Office Action, Claims 1, 3-4, 8-9, 19, and 20 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Yamazaki (U.S. Patent No. 5,418,639). Also, Claims 1, 3-5, 8-9, 19, and 20 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Takada et al. (U.S. Patent No. 5,883,732). Applicant respectfully traverses these rejections.

Independent Claim 1

As recited in Claim 1, the present invention relates to an optical scanning apparatus including a light source, deflecting means, entrance optical means, and scanning optical means. The entrance optical means guides light emitted from the light source to the deflecting means and the scanning optical means forms an image of the light on a surface to be scanned using the light

deflected by the deflecting means. The scanning optical means asymmetrically changes curvatures in a sagittal direction at respective positions in a meridional direction. The curvatures in the sagittal direction at respective positions in the meridional direction facing in one off-axis direction across an optical axis of the scanning optical means comprise a plurality of sagittal deformation surfaces of which magnitude relation is larger than that in curvatures in the sagittal direction at respective positions in the meridional direction facing in another off-axis direction across the optical axis. The sagittal deformation surfaces comprise two or more surfaces in which the curvatures in the sagittal direction at the respective positions in the meridional direction increase or decrease on a same side.

Yamazaki relates to a light beam scanning device and discloses two image formation lenses disposed between a rotational polygonal mirror and a surface to be scanned. The lens includes a surface on which a change in the radius of curvature in a secondary scanning direction is non-symmetrical with respect to the distance from an optical axis.

Takada et al. relates to an optical scanner and discloses an imaging lens having entrance and exit surfaces such that the curvatures in the sub- and main scanning directions are independent of each other, with the curvature in the sub-scanning direction varying continuously in the main scanning direction over the effective area of the imaging lens.

However, according to Applicant's understanding, neither Yamazaki nor Takada et al. teaches or suggests the features of Claim 1 discussed above. Specifically, nowhere does Applicant understand either Yamazaki or Takeda et al. to teach or suggest at least 1) curvatures in the sagittal direction at respective positions in the meridional direction facing in one off-axis direction across an optical axis of the scanning optical means comprise a plurality of

sagittal deformation surfaces of which magnitude relation is larger than that in curvatures in the sagittal direction at respective positions in the meridional direction facing in another off-axis direction across the optical axis and 2) that the sagittal deformation surfaces comprise two or more surfaces in which the curvatures in the sagittal direction at the respective positions in the meridional direction increase or decrease on a same side.

Independent Claim 5

In another aspect of the present invention, independent Claim 5 recites an optical scanning apparatus including a light source, deflecting means, entrance optical means and scanning optical means. The entrance optical means guides light emitted from the light source to the deflecting means. The scanning optical means forms an image on a surface to be scanned of the light deflected by the deflecting means. The scanning optical means includes a plurality of sagittal asymmetric change surfaces in which curvatures in the sagittal direction change on an asymmetric basis in the meridional direction with respect to the optical axis of the scanning optical means.

Applicant understands Takada et al. to describe a point of inflection on both an entrance surface and an exit surface of an imaging lens. However, nowhere does Takada et al. teach or suggest scanning optical means that includes a plurality of sagittal symmetric change surfaces in which curvatures in the sagittal direction change on an asymmetric basis in the meridional direction.

In view of the foregoing, Applicant submits that independent Claims 1 and 5 are allowable over the cited art. Therefore, Applicant requests favorable reconsideration and withdrawal of the outstanding rejections.

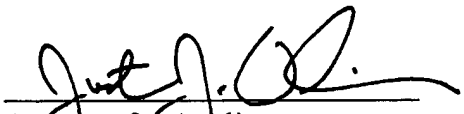
The dependent claims recite additional features of the invention. Applicant submits that the dependent claims are allowable for the same reasons the independent claims are allowable, and also for the additional features each dependent claim recites. Separate and individual consideration of each dependent claim is respectfully requested.

Applicant also respectfully requests that this Amendment After Final Rejection be entered. This Amendment was not presented earlier as Applicant earnestly believed that the claims on file would be found allowable. Given the Examiner's familiarity with the application, Applicant believes that a full understanding and consideration of this Amendment would not require undue time or effort by the Examiner. Moreover, for the reasons discussed above, Applicant submits that this Amendment places the application in condition for allowance. Accordingly, entry of this Amendment is believed to be appropriate and such entry is respectfully requested.

Applicant submits that the instant application is in condition for allowance. Favorable consideration and an early Notice of Allowance are requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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